

2012 DOE SOLID-STATE LIGHTING MARKET INTRODUCTION WORKSHOP

July 18–19, 2012
Wyndham Grand Downtown • Pittsburgh, PA

Workshop Agenda

DAY 1 — Wednesday, July 18

7:00 a.m.	<i>Registration Opens and Continental Breakfast</i>
8:00 a.m.	Welcome & Introduction <i>James Brodrick, U.S. Department of Energy</i>
8:30 a.m.	Product Pricing, Cost Effectiveness, and Financing Many cite the high cost of LED lighting as the #1 barrier to market adoption. Yet rapidly falling prices and improved product performance are making LED products viable in a growing number of applications. This panel will explore current market trends, retail product pricing, cost effectiveness of LED outdoor products, and innovative financing solutions for outdoor applications. <i>Moderator: James Brodrick, U.S. Department of Energy</i> <i>Jed Dorsheimer, Canaccord Genuity</i> <i>Bill Hamilton, The Home Depot</i> <i>Edward Smalley, Seattle City Light</i>
10:00 a.m.	The Elephant in the Room: Dimming LEDs are dimmable, right? Then why is there so much frustration about dimming LED products? A quick look at the challenges and issues surrounding today's dimmers and LED products, with a closer look to follow at the evening reception.
10:00 a.m.	<i>Refreshment Break</i>
10:30 a.m.	Lessons Learned in Outdoor Lighting Installations A growing number of cities are exploring LED lighting solutions, and this panel will share lessons learned from recent installations. Hear insights on the selection process, energy savings, and economics. <i>Moderator: Michael Myer, Pacific Northwest National Laboratory</i> <i>Richard Montanez, City of Philadelphia, PA</i> <i>Glenn Cooper, City of Boston, MA</i> <i>David Crockett, City of Chattanooga, TN</i>
12:00 p.m.	The Gorilla in the Room: Replacement Lamp Equivalency Equivalency statements for LED products often imply a one-for-one scenario. But will the LED product really produce the same quality and quantity of light? A quick look at the issues surrounding replacement lamp equivalency, with a closer look to follow at the evening reception.
12:00 p.m.	<i>Lunch</i>

- 1:00 p.m. **Understanding Reliability and Lifetime**
 Questions about LED product lifetime claims are understandable—LED products have not been around long enough to establish a track record. Learn about the issues surrounding true lifetime of LED packages and luminaires, how LED systems work, types of failures, and what a DOE-industry working group, IES, and others are doing to develop best practices and standards for describing lifetime more accurately.

 Moderator: *Fred Welsh, Radcliffe Advisors*
Jim Gaines, Philips Lighting
Jason West, D&R International
Lynn Davis, RTI International
- 2:30 p.m. **The Zebra in the Room: Color Quality**
 CCT and CRI have been used for years to describe the color quality of conventional lighting. But CRI scores alone can be misleading when it comes to LED lighting. A quick look at color quality metrics and LEDs, with a closer look to follow at the evening reception.
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- 2:30 p.m. *Refreshment Break*
- 3:00 p.m. **L Prize: What's the Buzz?**
 An update on the commercial and residential rollout of the first L Prize bulb, and what's next for the L Prize competition.
- 3:00 p.m. **LED Replacement Lamp Trends**
 The year 2012 marks the beginning of a significant shift in the replacement lamp market. This panel will share a global perspective of LED replacement lamp trends, and explore changes on retail shelves and in commercial distribution channels.

 Moderator: *Shana Cockerham, D&R International*
Vrinda Bhandarkar, Strategies Unlimited
Michael Royer, Pacific Northwest National Laboratory
Tom Harold, Grainger
- 4:30 p.m. **LED Lighting Facts® Special Recognition**
 DOE will recognize a few select LED Lighting Facts partners who have made a significant commitment to actively and creatively integrate LED Lighting Facts into their selection process for LED products.

5:00–7:00 p.m. *Networking Reception*

DAY 2 — Thursday, July 19

7:30 a.m. *Continental Breakfast*

- 8:00 a.m. **Life-Cycle Environmental Impact of LED Lighting**
 A three-part DOE study is under way to assess the life-cycle environmental impact in the manufacture, transport, use, and disposal of LED lighting products. This talk will provide an update on Part 1 and recently completed Part 2 (a review of life-cycle energy consumption, and a life-cycle environmental analysis of material and process inputs), and look ahead to Part 3 (disassembly and chemical testing).

Heather Dillon, Pacific Northwest National Laboratory

8:30 a.m.	Lessons Learned in Lighting Showrooms Perspectives from lighting showrooms on how customers select LED products and what is needed to improve market penetration (and reduce returns and customer dissatisfaction), plus a candid view from an electrical contractor on the challenges encountered with LED product installations. <i>Moderator: Naomi Miller, Pacific Northwest National Laboratory Laurie Gross, Gross Electric Mary Ann Kelly, Platinum Lighting Concepts, Inc. Mark Schulkamp, Mark W. Schulkamp Electric Company</i>
10:00 a.m.	<i>Refreshment Break</i>
10:30 a.m.	Weaving LED Products into Existing Lighting Efficiency Programs LED lighting is on the cusp of rapid market adoption, and utility and state incentive programs are key to accelerating market penetration. A look at the challenges surrounding LED products, how they differ from conventional lighting products, and how to make the transition within efficiency programs less risky, less problematic, and more successful. <i>Moderator: Marc Ledbetter, Pacific Northwest National Laboratory Fred Gordon, Energy Trust of Oregon Vireak Ly, Southern California Edison Dan Mellinger, Efficiency Vermont</i>
12:00 p.m.	<i>Lunch</i>
1:00 p.m.	Commercial Ambient LED Lighting Solutions A range of commercial ambient LED lighting products have entered the market in recent years, all going up against some very challenging incumbent products. LED T8 retrofit tubes, integral luminaires, troffer retrofit kits. Some with modular components and others without. How are they performing? How easy are they to install? How easy are they to maintain? Can they be dimmed? Are they cost-effective? What are some of the design issues with the technology? Hear about these and other issues, as well as an introduction to a new DOE-sponsored study of commercial ambient lighting with SSL products. <i>Moderator: Michael Myer, Pacific Northwest National Laboratory Gregory Galluccio, Leviton Manufacturing Company Naomi Miller, Pacific Northwest National Laboratory Rick Miller, RNM Engineering</i>
2:30 p.m.	<i>Refreshment Break</i>
3:00 p.m.	Lessons Learned from Facility Managers Hear firsthand from facilities managers—for retail, healthcare, and commercial buildings—about their experiences with LED lighting installations. What do they look for in LED products, what issues do they encounter in their projects, and what kind of energy savings and payback are they seeing? <i>Moderator: Marc Ledbetter, Pacific Northwest National Laboratory Pat Lydon, Legacy Health Cheryl Penkivech, Target John Scott, Colliers International</i>
4:30 p.m.	<i>Wrap-Up and Adjourn</i>
